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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,096	03/12/2004	Richard M. Hogan	4022-000014	8094
27572 7590 07/20/2009 HARNESS, DICKEY & PIERCE, P.L.C. P.O. BOX 828 BLOOMFIELD HILLS, MI 48303				
EXAMINER				
DESAL, ANISH P				
ART UNIT		PAPER NUMBER		
1794				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/800,096

**Applicant(s)**

HOGAN ET AL.

**Examiner**

ANISH DESAI

**Art Unit**

1794

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 22-24-30 and 48-54 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 22-24-30 and 48-54 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/S508)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

***DETAILED ACTION***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed on 05/05/09 after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05/05/09 has been entered.
2. In view of applicant's amendment, the 35 USC Section 112-first and second paragraph rejections are withdrawn. However, a new 35 USC Section 112-second paragraph rejection to claim 29 is made.
3. The 35 USC Section 103(a) rejections based on Takahira et al. (US 6,395,360B1) in view of Gerard et al. (US 5,929,167) are maintained. It is noted that in previous Office action, in view of applicant's amendment reciting "polymer layer made of a single polymeric material", the Examiner had equated release functioning layer 1 of Takihara to applicant's layer A. In view of the present amendment cancelling the recitation "single polymeric material", the Examiner is changing his interpretation of Takihara reference, which is discussed below in this Office action.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 29 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. Regarding claim 29 recitation "the thermoplastic polyurethane layer", there is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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6. Claims 22, 24, 26, 28-30, 48, and 50-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahira et al. (US 6,395,360B1) in view of Gerard et al. (US 5,929,167).

7. The Examiner respectfully submits that claim 22 as presently recited is interpreted as there is nothing in this claim that excludes layer A and layer B from comprising plurality of layers (see claim 27).

8. Regarding claims 22, 24, 48, and 53 Takahira discloses a pressure-sensitive adhesive sheet having a multilayer release liner (4, 4) applied on both sides of a layer of pressure sensitive adhesive 5 (equated to applicant's layer B-adhesive layer) (see abstract, Figure 2, and column 6 lines 26-45). The release liner 4 (equated to applicant's expendable polymeric layer A) of Takahira as set forth at column 3 lines 30-35 comprises polyethylene and it exhibits good release function (abstract). Since the release liner of Takahira exhibits good release function (abstract), it is clear that the release liner is capable of being readily separated from the adhesive layer as presently claimed.

9. With regards to the claim limitation of "co-extruded A-B-A composite sheet", the phrase "co-extruded" is interpreted to be a product-by-process limitation. The product by process claims are not limited to the manipulations of the recited steps, only the structure implied by the steps. "Even though product by process claims are limited by

and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product by process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985).

10. Once the Examiner provides a rationale tending to show that the claimed product appears to be the same or similar to that of the prior art, although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289, 292 (Fed. Cir.1983).

11. In the instantly claimed subject matter, a three-layer A-B-A composite sheet of applicant comprises an expendable polymeric layer A made of a polyolefin material and a thermoplastic adhesive layer B. Further, the claim language does not explicitly exclude other layers from being present in the three-layer A-B-A composite sheet. Moreover, the presently claimed invention requires that layer A is made of polyolefin material. The adhesive sheet (composite sheet) of Takahira is previously disclosed and it includes an adhesive layer 5 (layer B) that is covered on both sides with a release liner 4 (layer A) that includes polyolefin material. Based on this, there is no unobvious difference between the claimed composite sheet and that of Takahira.

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12. The difference between the claimed invention and the prior art of Takahira is that Takahira is silent as to teaching a thermoplastic adhesive layer (claim 22) and the adhesive layer comprising a thermoplastic polyurethane (claim 26).

13. However, Gerard discloses a pressure sensitive adhesive composition and articles containing the pressure sensitive adhesive composition; wherein the PSA composition of Gerard comprises thermoplastic polyurethane (abstract). According to Gerard, the PSA based on thermoplastic polyurethane has a better tack and cohesion properties and exhibits enhanced stability (column 1 lines 34-45).

14. It is noted that the primary reference of Takahira discloses that no particular limitation is imposed on the pressure sensitive adhesive (column 5 lines 13-17). Gerald's PSA based on thermoplastic polyurethane has a better tack and cohesion properties and exhibits enhanced stability (column 1 lines 34-45).

15. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the thermoplastic polyurethane of Gerard in the invention of Takahira, since Takahira's invention imposes no particular limitation on the pressure sensitive adhesive (column 5 lines 13-17) and one would have used such a thermoplastic polyurethane adhesive with a reasonable expectation of success because such adhesive provides better tack, cohesion properties, and enhanced stability.

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16. Regarding claims 28, 50, and 52, Takiyara discloses "Total thickness of the release liner can be selected as needed within an extent not damaging the strength, handling properties or the like, but generally it is about 20  $\mu\text{m}$  to 200  $\mu\text{m}$ " (column 4 lines 35-40), which converts to 0.00078 in to 0.0078 in respectively (using 1  $\mu\text{m}$  = 0.000039 in) and reads on expendable polymeric layer having a thickness of 0.003-0.010 inches as presently claimed.

17. With respect to claims 29, 51, and 52, the thickness of the PSA sheet of Takahira is from 1 to 200 micrometers (column 6 lines 5-8), which reads on applicant's thickness of 0.005 inches (127 micrometers) to 0.09 inches (2,286 micrometers). This disclosure of Takahira in combination with the secondary reference Gerald, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the thermoplastic polyurethane of Gerard in the invention of Takahira with the thickness as taught by Takahira, since Takahira's invention imposes no particular limitation on the pressure sensitive adhesive (column 5 lines 13-17) and one would have used such a thermoplastic polyurethane adhesive with a reasonable expectation of success because such adhesive provides better tack, cohesion properties, and enhanced stability.

18. Regarding claim 30, it is reasonable to presume that this imitation is present in the invention of Takahira as modified by Gerard. The support for said presumption is based on the fact that the three layer A-B-A composite sheets of applicant and that of Takahira as modified by Gerard as set forth above include expendable polymeric layer



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made of polyolefin and thermoplastic adhesive layer B. Further, the expendable polymeric layers A of applicant and that of Takahira as modified by Gerard are capable of being readily separated from the adhesive layer. Therefore, the aforementioned claim limitation would necessarily be present in the invention of Takahira as modified by Gerard. The burden is respectfully shifted to Applicant to prove it otherwise (see *In re Fitzgerald*, 205 USPQ 594).

19. Claims 25, 49, and 54 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takahira et al. (US 6,395,360B1) in view of Gerard et al. (US 5,929,167) as applied to claims 22, 26, and 52 above, and further in view of Caldwell (US 3,581,884).

20. Takahira as modified by Gerard is silent as to teaching A comprises a polypropylene and A is made of polypropylene as presently claimed.

21. However, Caldwell discloses a plastic film PSA tape, wherein the adhesive layer 8 of Caldwell is covered with a dry-strippable release liner (abstract). At column 4 lines 43-50, Caldwell discloses "A suitable dry-strippable release liner is a thick pigmented white polyethylene film...Another suitable liner is a matte finish nonpigmented **polypropylene** film...frosty surface.". This disclosure of Caldwell is interpreted as Caldwell discloses the equivalence and interchangeability of using polyethylene as disclosed by Takihara with using polypropylene as presently claimed.

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22. Therefore, it would have been obvious to select polypropylene film as a release functioning layer (expendable layer A) as taught by Caldwell, because selection of a known material based on its suitability for its intended use establishes a *prima facie* case of obviousness.

23. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takahira et al. (US 6,395,360B1) in view of Gerard et al. (US 5,929,167) as applied to claim 22 above, and further in view of Schacht et al. (US 5,096,777).

24. Takahira as modified by Gerard is silent as to teaching the adhesive layer comprises a plurality of individual adhesive sheets.

25. However, Schacht discloses a double-sided adhesive tape without a backing (see title). The disclosure of Schacht beginning at column 2 lines 19 to column 2 lines 45 is interpreted as Schacht disclose plurality of individual adhesive sheets that are covered on both sides with a release paper.

26. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use plurality of individual adhesive sheets, motivated by the desire to enhance the strength of the adhesive tape.

***Response to Arguments***

27. Applicant's arguments filed on 05/05/09 and 04/27/09 have been fully considered but they are not persuasive.

28. On pages 6-7 of applicant's amendment, referring to Figure 2 of Takahira reference, applicant argues that Takahira's Figure 2 discloses up to seven layers, whereas the claimed composite sheet has only three layers.

29. While the Examiner recognizes that applicant intends to claim composite sheet having ***only there layers***, it is submitted that claim 22 as presently recited is not sufficient to overcome the art rejection set forth in this Office action, because there is nothing in the claim that ***excludes*** layer A and layer B from each comprising a plurality of layers. This is further evidenced by claim 27, which recites that the adhesive layer comprises plurality of individual adhesive sheets. As such, applicant's arguments are not found persuasive.

30. On pages 7-8 of applicant's amendment, applicant argues that "The claims also differ in non-obvious way from the reference because they recite a coextruded composite sheet. The reference, on the other hand discloses a seven layer material (see Figure 2 above) produced by conventional lamination." Applicant further asserts that a person of skill in the art understands that the structure of a coextruded sheet is

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different from that of a conventional laminated multilayer sheet. In order to support his/her position, applicant has cited Encyclopedia of Polymer Science and Engineering.

31. The Examiner respectfully submits that the evidence provided by applicant is not persuasive for the reasons provided on page 2, Section 4 of the Advisory Action mailed on 01 May, 2009. Specifically, with respect to the evidence provided by applicants in Encyclopedia of Polymer Science and Engineering, the evidence is not persuasive given that while the evidence establishes that coextrusion and lamination are different processes and that coextrusion allows for the manufacture of products with thinner layers, producing a product with thinner layers is not a necessary result of the coextrusion process, i.e. coextrusion could be used to produce layers with the same thickness as produced by lamination, and therefore, one would produce same product with coextrusion as with lamination.

32. Additionally, the Examiner submits that he is unsure as to what does applicant want to convey by stating "The priming and coating steps results in a different structure between conventionally laminated films and the claimed coextruded composite sheets" (page 7, second full paragraph of April 27, 2009 amendment). It appears that applicant is asserting that the conventionally laminated films will have more than three layers (because of coating and priming) as compared to the presently claimed coextruded composite sheet. However, it is respectfully submitted that this is not found persuasive since the aforementioned evidence reference does not provide support for this

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assertion. Moreover, as stated previously, there is nothing in the claim that ***excludes*** layer A and layer B from comprising plurality of layers. Accordingly, applicant's arguments are not found persuasive.

### ***Conclusion***

33. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANISH DESAI whose telephone number is (571)272-6467. The examiner can normally be reached on Monday-Friday, 8:00AM-4:30PM.

34. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on 571-272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

35. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. D./

Examiner, Art Unit 1794

/Callie E. Shosho/

Supervisory Patent Examiner, Art Unit 1794